

IMPACT TO INFRASTRUCTURE

Long before the June flood, many of the impacted communities had been struggling with challenges posed by inadequate and deteriorating infrastructure. As an example, only an estimated 35 percent of the residents in Clay County have potable water and 10 percent have sanitary sewer service. In Kanawha County, 95 percent of the residents have potable water service and 70 percent have sanitary sewer service, but many of the existing systems are aged, deteriorated and in need of rehabilitation or replacement and relocation.

A number of the same communities have limited ability to obtain loans or to provide the local matching funds required by federal infrastructure assistance programs. The local financial limitations stem from a number of economic realities including a shrinking customer base and inability to increase water and sewer rates due to their customer's inability to pay.

Many of the impacted areas, including White Sulfur Springs and Rainelle in Greenbrier Counties, have internet but little, if any, high speed broadband access. Internet service is still provided through dial-up internet service in most of Clay County. The ability to attract new business is severely impeded, thereby impeding economic recovery. The West Virginia State Legislature established a Broadband Enhancement Council to address state-wide access to broadband issues in 2016. It convened on September 6, 2016 and the Economic RSF partners will coordinate with the council to explore ways to address the broadband infrastructure needs.

The topography will always be an obstacle to economic development in West Virginia. The inability to locate and develop large sites with adequate access to infrastructure (water, sewer, and roads) are problems in the impacted area. There are few, if any, sites of more than 50 acres available within the impacted area. Smaller site development is also impeded by the abandoned buildings in many of the communities. Only one county and one municipality impacted have a building commission and code enforcement program. The lack of building codes and commissions in most counties makes removal of these abandoned buildings extremely difficult.

IMPACT TO TOURISM AND REGIONAL BRANDS

The 12 counties most heavily impacted by the flooding include communities with diverse topography and a variety of tourism attractions and eco-tourism destinations. State tourism officials have said that tourism destinations across the state, from Oglebay Resort in Wheeling to attractions in the Eastern Panhandle, are fielding inquiries about June's flash flooding. The tourism sector generates nearly \$5 billion into the state's economy annually and 46,000 jobs, the state reported. While the flood is expected to take a toll on the industry, the state has yet to estimate how many visitors or dollars might be lost.

One area where tourism could see a drastic decline is in Greenbrier County. Tourism is the largest industry in the county and generates \$98 million annually in economic revenue. Greenbrier County's Convention and Visitors Bureau created the "Tourism Recovery Marketing Plan" aimed at countering the public's impression that the devastation caused by the flash flooding has closed down the region's tourism industry.



Greenbrier County is home to the most well-known tourist destination in the state—the Greenbrier Resort. The resort, which employs about 1,800, was closed for weeks and its signature event, the Greenbrier Classic PGA Tour tournament, was canceled because of the June flood. At the time of the tournament cancellation there were about 33,000 ticket holders, and all 710 guest rooms had been rented. When fully accounted, the resort owners expect the losses will be in the millions of dollars.

The indirect economic fallout of these cancellations also impacted area lodging, restaurants, shops and other tourism attractions. Of the businesses surveyed by regional economic development council, about 64 reported an aggregate loss of \$3.8 million.

In Fayette County, the New and Gauley Rivers draw white water rafters from around the world. The season is short, about three months, but it engages a variety of businesses including lodging establishments, restaurants, equipment rentals, food and beverage stores, vehicle and boat support services and rafting tour guides. The flood hit in the heart of the season and businesses reported that they lost a month of annual revenue. The revenue losses were attributed to both the rising water from the flood and flooding caused by the closing of the spillway at the Summersville Dam. The dam was closed to protect communities down the river in Fayette and Kanawha Counties. When the dam was closed, the white water tours were also halted until water levels could return to seasonal norms. Many of the employees involved in the whitewater and related industries work on a per diem basis, meaning they were out of work as long as there were no patrons to serve.

In Nicholas County, Summersville Lake lost a month of tourism revenue because of the dam closure. Waters rose 90 feet in just a matter of days. Some of the restaurants, equipment rentals, and other businesses that rely on the lake for customers were closed for as little as three days while others have been closed for nearly three months.

In Kanawha County, the River Front Festival in Charleston was severely curtailed after the flood waters rose along the Kanawha River. Thousands attend the festival at Haddad River Front Park, within a short walk of restaurants and bars.

In addition to the major losses reported to local officials, there are many smaller businesses that lost business because fishing and camping activities were interrupted. In Webster County, for instance, revenue was lost to campgrounds and rentals and bait and tackle shops, such as the Baker's Island Recreational Area, Homestead Acres Campground, Living Water Cabins and fourteen additional smaller campgrounds.

The total revenue loss to the tourism-based economies might become clearer after affected municipalities collect their third quarter business and occupation tax after October 1. The third-quarter report should reflect local revenue losses that were not captured in the second quarter report, which was released at the end of June, just a few days after the flood event.



AGRICULTURE LOSSES

The agriculture industry, particularly in Greenbrier County, took a significant hit from the June flood, but as the water has receded, agriculture officials have said the losses, particularly of livestock, were not as heavy as they had initially feared.

The USDA Farm Service Agency and the West Virginia Department of Agriculture have reported that 6,000 farms across 32 counties sustained some damage from crop and livestock losses to downed fences. Farmers loss an estimated \$1.7 million in corn crops, \$1.6 million in hay and about half a million dollars in pasture and forage land was damaged. About 800 cattle, sheep and other livestock were lost, fewer than expected, in some part due to the fact that many fences were destroyed, which allowed much of the livestock to leave and seek safety in the mountains.

The agriculture losses could increase over the next few months as farmers have been urged to avoid any new planting activity until the end of September to avoid the threat of contamination from flood water that can leave bacteria that can affect the soil for up to 90 days. Any potential impact from such contamination will be monitored and accessed after the 90-day period.

Upcoming Economic Recovery Efforts

Over the next two months, the state disaster recovery team plans to conduct listening sessions and other outreach to regional and community leaders in order to identify priority recovery challenges and resiliency initiatives. The Economic RSF, the Housing RSF and the CPCB RSF have been asked to participate in the state outreach and all three RSF teams will be collaborating with the state to identify federal and private sector resources that might support local recovery and resiliency.

The Economic RSF team will work closely with the West Virginia Department of Commerce, and the state recovery team, regional EDDs, and other organizations that work directly with businesses to identify any additional economic recovery issues and opportunities to support business assistance and economic revitalization and resiliency.

The team will also engage with the Community Planning and Capacity Building RSF and its partner organizations to explore opportunities to engage regional planning and development councils and associated economic development districts in the development of local and regional recovery and resiliency strategies.

The Economic RSF will collaborate with the Housing RSF and its partners to monitor housing and social service issues as they continue to emerge with the objective of identifying economic consequences to communities in the most severely impacted regions.

The Economic RSF will consider points of engagement on the priority issues identified through outreach to impacted communities and issues reported by other federal, state and regional entities. The team will also explore the interest of the state and community leaders in developing programs that encourage economic diversification, nurture entrepreneurship and support economic growth and sustainability.



The Economic RSF also will assist West Virginia by offering case studies and best practices of communities that have sustained similar natural disasters and successfully implemented economic recovery strategies that led to more resilient economies. The team could explore the interest of the state recovery team in conducting economic resiliency workshops that emphasize practical applications economic developers can use to connect the dots between economic development, economic recovery and economic resilience.

Because of the pre-existing economic downturn in many of the flood-impacted communities, the Economic RSF could also assist the state by providing training on unique components/metrics to both evaluate existing economic development plans and to initiate the integration of economic resilience in all community planning.



Housing Recovery

The Housing RSF coordinates and facilitates the delivery of Federal resources to implement housing solutions that effectively support the needs of the whole community and contribute to its sustainability and resilience. Housing is a critical and often challenging component of disaster recovery, but must be adequate, affordable, and accessible to make a difference for the whole community.

Background

The Housing RSF Field Coordinator, Interagency Recovery Coordination (IRC), state and federal RSF partners, regional federal banking organizations, the West Virginia Governor's Office, the West Virginia National Guard and other Departments at the state and local level collaborated on planning, policy and resources across housing and community development needs in the impacted communities.

The primary focus was on finding ways to use existing resources for more resilient building practices to mitigate against future disasters while also searching for additional resources from Non-Governmental Organizations (NGOs). Work with partners also clarifies where the impacts are most significant, from a community perspective, and how federal, state or local recovery capabilities are, or may be exceeded during recovery.

In addition to coordinating with other housing partners, HUD works with its grantees, housing providers, continuum of care providers, housing counseling agencies and entitlement communities throughout the state on housing and community development issues. In rural areas, USDA-Rural Development can provide significant reach across local partners to low- and moderate-income families and communities in need.

Housing Recovery Support Function

Coordinating Agency

U.S. Department of Housing and Urban Development (HUD)

Primary Agencies

FEMA/DHS

Department of Agriculture (USDA)

Supporting Agencies

American Red Cross (ARC)*

Corporation for National and Community Services (CNCS)*

U.S. Department of Commerce (DOC)*

Department of Energy

Department of Health and Human Services (HHS)

Department of Veteran's Affairs (VA)

Environmental Protection Agency (EPA)

General Services Administration (GSA)

National Voluntary Organizations Active in Disaster (NVOAD)*

Small Business Administration (SBA)*

U.S. Access Board

**Federal agencies engaged in MSA development*



Housing Recovery Issues

In the 12 West Virginia counties designated for federal assistance, June storms damaged more than 4,600 homes and 73 were completely destroyed. The hardest hit counties were Clay, Kanawha, Nicholas, and Greenbrier. Rapid flood surges often cause severe disruptions to rural communities in West Virginia's mountain valleys. Landslides and mudslides ruin many homes and disrupt travel and access into and out of these communities.

As of September. 7, 2016, FEMA had provided rental assistance to 2,849 flood survivors (2,191 homeowners, 658 renters) displaced from their homes by the disaster. The real number of those displaced is higher as many who were displaced were not eligible for or, did not ask for FEMA rental assistance.

By the same date, FEMA had awarded its maximum grant of \$33,000 to 281 homeowners; generally max grants are made only to those whose homes were lost or very severely damaged. To date, FEMA has made grants for home repairs and other needs assistance totaling more than \$40 million to 4,860 applicants. The average housing assistance grant amount was more than \$7,300. However, FEMA deemed nearly 2,200 applicants ineligible. Indications are that a number of these were denied due to reasons that were unrelated to the extent of storm damage.

Increased Financial Burden Of Homeownership

There are limited federal housing resources for displaced households due to low-vacancy rates statewide. These are typical shortcomings after a disaster.

- Federal programs that fund construction of affordable rental housing may be available but state and local agencies must apply for the funds and construction could take years. The need to obtain waivers to be eligible for some federal programs can extend this timeline even longer.
- There are several reasons FEMA may reject applicants for home repair assistance even if their home was damaged by the recent disaster.
 - ✓ Nearly one in six housing assistance applicants were deemed ineligible because of pre-existing structural conditions of their residences. Often it is difficult for homeowners with lower incomes and resources, to keep up with home repairs and maintenance, thus bringing into question the pre-existing habitability of their disaster-damaged homes.
 - ✓ Some flood survivors' level of illiteracy may have left them unable to complete the application properly or to understand letters from FEMA.
 - ✓ FEMA policy states that applicants who cannot prove home ownership are ineligible for housing assistance. Inability to prove ownership of inherited homes, ownership disputes and rent-to-own fraud may cause FEMA to deny housing assistance—even though the applicant has experienced flood damage to their dwelling.
- Many West Virginia homeowners with lower incomes, meager family resources and low property values experienced significant damage from the recent flooding and lack the



resources such as; savings, insurance, FEMA grants, loans or other assistance, for property repairs to make their homes habitable. The problem can be exacerbated for homes that have been damaged by repeated flooding.

- Families with few resources are less likely to recover without assistance. Even if available, an insurance payout would be low due to the property's poor condition. Replacement costs may be dramatically higher than the property's current value if the home must be fully rebuilt. In addition, poorer families may not have sufficient income or a proper credit score to qualify for an SBA disaster recovery loan.
- There may be federal and non-federal programs that can provide home repair assistance to those who did not qualify for FEMA assistance or who still have unmet needs after receiving FEMA assistance, however, the gap between disaster survivors' needs and these potential sources remains significant.

Habitable And Environmentally Healthy Housing

- Even minimal levels of floodwaters provide an excellent environment for the growth of mold under and throughout a house. Mold remediation must be part of any local repair or rehabilitation program.
- Housing rehabilitation should bring the structure back to a "habitable housing" standard, which is in accordance with local health and safety regulations, codes, and ordinances.
- A property should be repaired to ensure plumbing, electrical and structural systems and fixtures are fully operational and meet existing building codes.
- Severely damaged or destroyed residences, both stick built and manufactured, should be demolished and the debris properly disposed of off-premises. This may require a coordinated, cross-jurisdictional program to properly dispose of the demolition debris with serious consideration for environmental health issues.
- With older structures there may be other significant environmental hazards i.e., lead-based paint and asbestos which must be abated and disposed of properly.

Prevalence of Blight in Communities

- Blighted and/or abandoned properties are a concern in some communities, particularly in rural areas. Neighborhoods in generally poor condition are likely to take longer to recover as there are fewer individual resources to support the recovery. This may result in spotty reconstruction which will increase community infrastructure costs and decrease property values for an extended period.
- Statutory requirements on the use of federally funded programs often restrict the use of such funds beyond what is defined in strategic plans, thus requiring a waiver for use in disaster recovery.
- Recovery from this disaster is largely contingent on resources to rebuild, relocate, or remove damaged structures and the capacity to perform repairs/reconstruction quickly. Reconstruction speed is important, because temporary housing costs may draw from the reconstruction resources of disaster survivors.



- In older neighborhoods, some homes undergoing repairs/reconstruction must be upgraded to modern building codes. Housing built to older codes is more likely to sustain damage during a disaster than housing built to modern codes. While some codes may not prevent intrusion of water into the dwelling, the anchoring requirements could prevent a home from floating off the foundation. Homes which shift off the foundation are usually demolished because the cost of repair is unaffordable. This would tend to exacerbate the flood's impact on older, less affluent neighborhoods.
- Many homes in the designated counties are served with disaster-damaged and/or improperly installed private septic systems. These pose a health risk to the homeowner and the public. Reconstruction/repair of damaged homes must include repair or replacement of damaged individual, private waste treatment systems.
- Surface water quality is a public health issue and can become an economic, natural and cultural resource issue. Septic leachate, if not properly treated, can infiltrate private wells and contaminate drinking water sources. Excess fecal coliform and the associated materials which lower dissolved oxygen levels reduce benthic stream habitats. Degraded natural habitats will then make the streams less desirable for fishing, boating, and other outdoor activities.

Including Resilience In Rebuilding

- Housing recovery must have a strong mitigation component to break the cycle of disaster disruptions. Recovery of impacted housing throughout the valley communities involves three inter-related resilience issues: strong private water crossings, flood resistant septic systems and elevated, flood-resistant residences.
- If a community participates in the National Flood Insurance Program (NFIP) and the cost to repair a home within a special flood hazard area (as designated in the local Flood Insurance Rate Map) exceeds 50 percent of the market value of that structure, then the home must be either removed, relocated, or raised above the basic flood elevation. Not all communities participate in the NFIP and these may not have adopted the program's rebuilding requirements. Some jurisdictions lack staff to enforce building codes even when flood damage prevention ordinances are in place. Costs to repair homes which have been determined to have substantial damage may exceed the market value of the residence. Impoverished homeowners may lack resources to conform to codes.
- As FEMA supports state and local officials to bring disaster-damaged homes and communities into compliance with NFIP and building codes, the result will lead to an increased level of resilience. Bringing the most vulnerable, impacted communities back to a more resilient level is a priority issue. This may lead to a decision to not rebuild in certain areas because of their flooding risk. Such decisions should be based on the best available flood mapping products and information, and comprehensive flood damage prevention standards. The unique, mountainous terrain typical of the impacted communities in West Virginia will require a collaborative planning effort to discover model rebuilding design criteria for both stick-built and manufactured housing. This approach is intended to protect the homeowner and community by bringing homes up to modern building codes. Local governments may need technical assistance on these matters from state and federal partners.



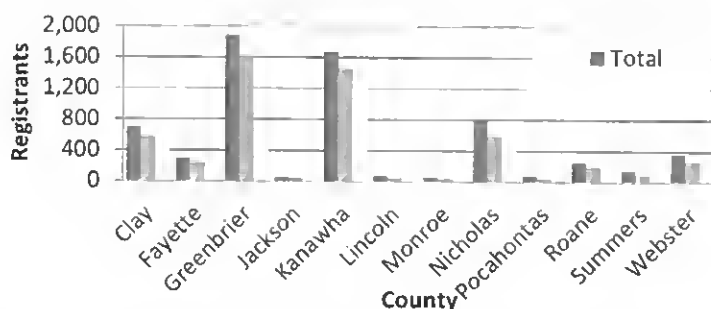
- West Virginia has been active in property acquisitions through the FEMA Hazard Mitigation Grant Program though property acquisitions have declined drastically since the number of acquisitions peaked in 2008.
- Over 200 private access water crossings, the sole access many survivors have to public roads, were destroyed. Building back in a more resilient fashion not only involves mitigation of flood risk to the structure, but also rebuilding private, individual water crossings to a standard developed by the West Virginia VOADs,
- Following several federally declared West Virginia flooding disasters in 2015, VOADs were active in the repair and /or replacement of private water crossings. They were particularly successful in their utilization of a Mennonite Disaster Services, which included an engineer who developed plans and specifications for resilient bridge replacements. Of the 16 bridges the Mennonites built, only one sustained minor damage by the June floods and was quickly repaired. The Mennonites are scheduled to return to West Virginia this year to build more privately owned bridges. FEMA has also developed guidance on private water crossings.

Analysis and Impacts

After survivor's register for assistance, an inspection is conducted to estimate the FEMA Verified Loss (FVL). The inspection process differentiated between property owners and renters by examining both real and personal property loss. Renters could only experience loss of personal property because their home was owned by the landlord¹.

Figure 1 shows the number of registrants for each of the declared counties as well as those registrants who were documented as having water in the home or a FVL greater than \$5,000. While Greenbrier and Kanawha Counties are similar in the number of registrants, Greenbrier County has a population² of 35,480 compared to Kanawha County's 193,063. Comparing the number of households in each county that experienced water in the home or a FVL greater than \$5,000 to the total number of households in that county shows that Clay, Greenbrier, Nicholas and Webster had more than 5 percent of the households experiencing one or both of the two. (Figure 2)

Figure 1. Individual Assistance Registrants from the Declared Counties



¹ The fact that some inspections resulted in no identified real or personal property loss is likely a result of processes which encourage widespread registration and not necessarily unmet need.

² 2010 Demographic Profile Data. Table DP-1

Figure 2. Proportion of County's Households Impacted

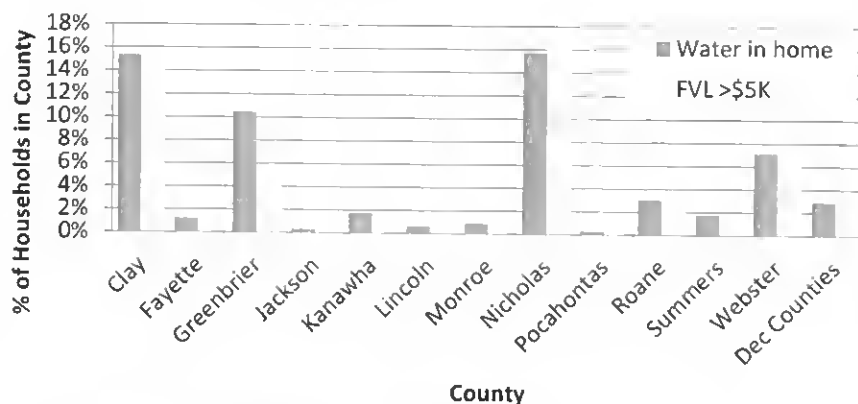
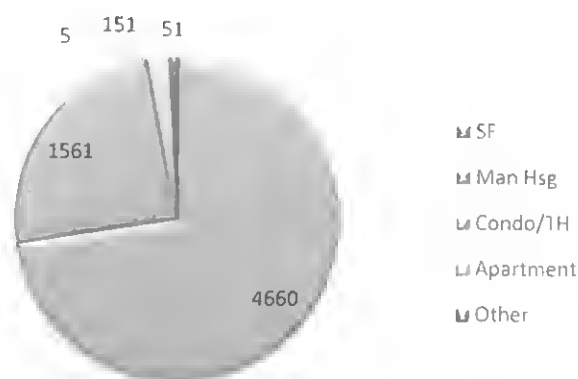


Figure 3. Housing Types in IA Declared Counties



The pie chart on the previous page shows the housing types for the registrants in the IA declared counties. Note that the vast majority, 97 percent, of the stock is either single family homes (72.5 percent) or manufactured housing (24.3 percent), with few condominiums, townhouses or apartments.

From information provided by FEMA and West Virginia state and local governments, 27 communities were identified as particularly impacted by the flooding. At the time this document was prepared, in those communities, there were 4,892 registrants with FEMA, representing 76.2 percent of the 6,422 registrants from all 12 IA declared counties (Table 1). Note that 80.7 percent of the registrants from these communities are owners and 19.3 percent renters. These communities have a slightly higher proportion of renters than was seen among the registrants from the 12 counties where 15.9 percent are renters.

Table 1: Most Impacted Communities

Community	Owners	Renters
ALDERSON	174	53
ANSTED	29	1
BELLE	18	0
CAMDEN-ON-GAULEY	87	17
CHARLESTON	137	28
CLAY	133	21
CLENDENIN	819	229
COWEN	97	6
FAYETTEVILLE	41	1
GAULEY BRIDGE	19	4
HILLSBORO	21	0
HINTON	88	20
LEWISBURG	133	17
MARLINTON	55	14
MEADOW BRIDGE	22	1
OAK HILL	24	3
QUINWOOD	26	1
RAINELLE	487	164
RAVENSWOOD	18	2
RICHWOOD	329	65
RONCEVERTE	127	31
RUPERT	153	26
SPENCER	14	1
SUMMERSVILLE	164	23
UNION	6	1
WEBSTER SPRINGS	175	28
WHITE SULPHUR SPRINGS	552	187
Grand Total	3948	944

Within these 27 communities, the impact is further concentrated. Zip codes are a convenient spatial analog as they are well understood as locations by residents and community leaders. These 27 communities are represented by 43 zip codes. When considering only the zip codes where 100 or more registrants were located, 14 zip codes³ are identified. In those zip codes, 4,397 registrants are located (3,512 owners and 885 renters). That constitutes 89.9 percent of the total number of registrants in the most impacted communities. This is shown below in Table 2.

³ Examining the remaining 29 zip codes shows a dramatic drop-off, with only two zip codes having between 50 and 99 registrants and the remaining 27 zip codes with less than 50 registrants (the majority of them with under 25).



Table 2: Most Impacted Areas

Community/Zip		Total Registrants	Owners	Renters
ALDERSON	24910	227	174	53
CAMDEN-ON-GAULEY	26208	104	87	17
CLAY	25043	153	132	21
CLENDENIN	25045	1048	819	229
COWEN	26206	103	97	6
HINTON	25951	108	88	20
LEWISBURG	24901	150	133	17
RAINELLE	25962	650	486	164
RICHWOOD	26261	394	329	65
RONCEVERTE	24970	158	127	31
RUPERT	25984	179	153	26
SUMMERSVILLE	26651	187	164	23
WEBSTER SPRINGS	26288	203	175	28
WHITE SULPHUR SPRINGS	24986	733	548	185
Total		4397	3512	885

While the broad goal is to help all disaster affected communities, families and individuals recover from the flooding, experience has shown that the areas where the damage is most concentrated face the greatest challenges to recovery. As a result, it is prudent to consider these areas.

The following table on page 37, shows the population, percent of the zip code population that are registrants, and the Adjusted Gross Income (AGI)⁴ for the zip code. The percent of total column shows the share of registrants for each highly impacted zip code relative to the total across the 27 identified communities.

⁴ City-data.com, population data are 2013 estimates and AGI is for tax year 2012.



	Zip Code	Owner	Renter	Total	% of Total (of 4892 owners & renters)	Zip Code Population, 2013	Registrants, % of population	Zip Code AGI, 2012
ALDERSON	24910	174	53	227	4.6%	5616	4.0%	\$35,960
CAMDEN-ON-GAULEY	26208	87	17	104	2.1%	821	12.7%	\$38,023
CLAY	25043	132	21	153	3.1%	1724	8.9%	\$39,382
CLENDENIN	25045	819	229	1048	21.4%	5640	18.6%	\$41,574
COWEN	26206	97	6	103	2.1%	2781	3.7%	\$39,177
HINTON	25951	88	20	108	2.2%	5987	1.8%	\$35,411
LEWISBURG	24901	133	17	150	3.1%	8436	1.8%	\$56,171
RAINELLE	25962	486	164	650	13.3%	3792	17.1%	\$35,904
RICHWOOD	26261	329	65	394	8.1%	3068	12.8%	\$32,400
RONCEVERTE	24970	127	31	158	3.2%	4950	3.2%	\$38,919
RUPERT	25984	153	26	179	3.7%	2307	7.8%	\$34,217
SUMMERSVILLE	26651	164	23	187	3.8%	10286	1.8%	\$50,830
WEBSTER SPRING5	26288	175	28	203	4.1%	3829	5.3%	\$35,370
WHITE SULPHUR SPRING5	24986	548	185	733	15.0%	5496	13.3%	\$42,470
Note: West Virginia Adjusted Gross Income for 2012 was \$48,628								

Three of the zip codes had more than 10 percent of the population registered with FEMA. Each of these zip codes reports lower Adjusted Gross Income than for the state as a whole. The aggregate impact of a large portion of the zip code suffering disaster damage is delayed community recovery. These three zip codes should be a priority for recovery efforts across the 27 highly impacted communities. As an example, in zip code 25045 (in Clendenin), there were 819 owners who registered with FEMA. Over half those property owners were not in the Flood Insurance Rate Map A Zone⁵ and 218 of those properties experienced some degree of flooding, with 89 seeing six inches or less. While the structural impact of such flooding depths is comparatively minor, the expense⁶ to the homeowner can be significant.

For residents displaced by flooding, housing may be needed temporarily during repair or as a permanent alternative. The Market-at-a-Glance reports suggest that each of the counties may have a significant amount of vacant housing that could be available for use. This is in addition to housing stock which is vacant but is currently considered not on the rental market (this category generally includes vacation and similar housing that may be vacant for much of the year).

⁵ The A Zone is that area where there is a 1% probability of a flood in a given year, often called the 100-year flood plain.

⁶ Shallow flooding could result in the loss of flooring, destruction of personal property and may require repair or replacement of drywall, doors, and cabinets. This would not be covered under a homeowner's policy and being outside the flood zone, most homeowners would not carry NFIP flood insurance.



County	Vacant Housing ⁷	
	For Sale	For Rent
Clay	43	26
Fayette	252	245
Greenbrier	312	400
Jackson	186	177
Kanawha	1424	1420
Lincoln	40	67
Monroe	132	102
Nicholas	74	211
Pocahontas	47	675
Roane	45	122
Summers	55	40
Webster	n/a	7

The percentage of FEMA maximum grants for housing assistance is much higher on this disaster (DR 4273-WV) than other recent disaster declarations. Some 278 maximum grants out of 8,984 total applications represent over three percent of the total. In West Virginia's narrow valleys there is often very little room to locate far from streams because of the steep geographic terrain. Housing traditions often dictate family members live on land in proximity to other family members. During floods, the results are disastrous as homes are washed down stream or otherwise destroyed.

Multiple flooding disasters in combination with a significant decline in the coal mining industry have had a devastating impact on the 12 designated counties. Coupled with limited development opportunities in the valleys adjacent to the flooded waterways, West Virginia communities are demographically and physically vulnerable to flood disasters.

Recovery from a disaster is largely contingent on resources to repair or rebuild the damaged housing stock. In urban areas, that is dependent on the availability of construction contractors, home builders and remodelers. In more rural areas, many of the residents may possess significant capacity that can be brought to bear through an informal process. As a result, what might seem to be a relatively low production of housing as evidenced from building permit activity may understate the community capacity.

For many property owners, the cost of repairs may exceed the value of the home, particularly for homes which were previously affordable. This is likely to impact homeowners as well as owners of rental properties. These owners may face reconstruction costs that exceed any insurance or other assistance, delaying reconstruction. Among lower income disaster survivors, there may also be a lack of experience with finding and managing the contractors capable of performing the repairs.

Reconstruction of housing post-disaster often takes an extended period of time as the individual property owners generally don't want to cede decisions to others. If a state or local government

⁷ 2014 American Community Survey estimates in Market at a Glance



agency were to take the lead and commit to build a large number of homes on private lots, it is probable that the homes would be built faster and cheaper than if the individual homeowners each engaged in the contracting process. Because there would be experienced construction professionals engaged on behalf of the homeowners, it is likely that the home quality would also be higher.

However, the ability of the state or local government to embark on such a total reconstruction effort may be limited by resources and the legal capacity to perform construction on private property. The government needs to have the funding to engage in an aggressive, targeted construction program.

In contrast, Incremental Reconstruction is a concept that came out of Hurricane Katrina, where disaster survivors serially occupied a number of types of temporary housing before they moved back to a permanent housing solution. Because each of the temporary products (travel trailer, HUD code manufactured housing, or more innovative products such as a Katrina Cottage) was installed and occupied and then vacated and removed, significant expense and disruption occurred with each phase of the process. Incremental Reconstruction solves this problem by building the survivor's home incrementally, the construction for the earliest phase of the process would be incorporated into the subsequent phases.

An early concept proposed rebuilding the garage for residency and allowing the family to occupy the garage, which would be equipped with cooking and sanitary facilities, prior to completing, or even starting reconstruction on the rest of the home. The garage would be designed to allow it to revert to a garage when the remainder of the project is complete and reconstruction of the remainder of the home would be the responsibility of the residents, with possible assistance of external charitable groups if necessary. From a disaster response and recovery perspective, this allows the federal government to focus efforts on getting families back in permanent, habitable homes quickly so the extended engagement seen following Hurricane Katrina would be shortened. By engaging the state and local governments, any progress goals or deadlines would be developed to support community based priorities.

Following implementation, such an approach might be accomplished fairly quickly because the components could be standardized and fabricated off site. The families could feel empowered as they would play a key role in their long-term recovery. A brochure produced by HUD in 2012 outlining strategies for incremental reconstruction of disaster damaged homes is available for more information.

FEMA has declared Clay, Kanawha, Greenbrier, and Nicholas counties eligible for direct housing assistance. To date, 26 families have been licensed into FEMA-supplied Temporary Housing Units (THUs). There are sufficient units to provide to all eligible applicants who choose, and they may occupy the unit for up to 18 months as they seek a more permanent housing solution.

Federal programs that fund construction of affordable rental housing may be available, but state and local agencies must apply for the funds and construction, which takes time. Affordable rental housing is a significant issue where rental housing vacancy rates are low and impacts to low-



income or hard-to-house families are high. Thus, recovery programs for rural and small town renters remain an issue and an unmet need. FEMA has resources available to fill direct housing needs in West Virginia. However, it remains unclear as to what extent of the region's long-term housing needs may be, particularly how many individuals will need THUs. The region has a very limited number of sites that can accommodate multiple THUs and any sites will likely require substantial expenditures for site preparation, infrastructure, utilities, etc.

Recovery from this disaster is largely contingent on resources to rebuild, relocate, or remove damaged structures and the construction capacity to perform the repairs/reconstruction. Reconstruction speed is important because temporary housing costs may draw from the reconstruction resources of disaster survivors.

Several communities have lost all of their elder care facilities representing a large portion of the population and potentially requiring the relocation of elderly residents outside of their current communities.



Next Step: The Recovery Support Strategy

With the completion of the MSA, the IRC has gained a good understanding of the issues caused directly by the flood. The assessment made clear that many of the gaps in West Virginia's capabilities are the result of conditions that have existed for years and very well may hinder a successful recovery. In particular, a slumping economy, limited connectivity and housing challenges will test the State's ability to build resiliency for future events.

The next step in the IRC mission is the development of the Recovery Support Strategy (RSS), an outline of how the federal government and other partners, can support the State's recovery. The RSS will provide identified activities which have been structured to meet goals, objectives and strategies to address the recovery issues established in the MSA.

Ideally, the RSS will include potential contributions from state and local partners, non-profits, the faith-based community and the private sector. While all recovery is local and must be championed by local officials, business leaders and citizens, it is the responsibility of the whole community to recover from disaster.

The State of West Virginia has suffered immensely from recent economic and natural disasters, and has many challenges ahead. However, since disaster recovery often focuses attention and resources on the State, the RSS can be a tool to guide opportunities to build back better and more resiliently for the future.



DR-4273-WV

Recovery Best Practices

1-24-2017

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Background & Introduction

As part of West Virginia's long term recovery efforts in response to heavy rains and flooding at the end of June 2016, FEMA National Disaster Recovery Support (NDRS) staff were asked to support a series of informal discussions, led by the West Virginia Department of Commerce.

A common request heard at each discussion was the desire to learn more about how other communities, from across the country, successfully navigated their recovery experiences, so that West Virginia communities might learn from the experience of others. Although there is no best practice found for a disaster exactly mirroring what West Virginia experienced in 2016, many communities nationwide have experienced similar issues and common challenges throughout their own recovery experiences.

Disaster recovery efforts are complex. There are numerous entities and resources involved in all disaster recovery efforts. There are also a seemingly endless list of recovery needs and issues. These factors require an approach focused on effectively coordinating resources to address a multitude of needs that help communities achieve their desired recovery outcomes. A common theme of the best practices presented in this document is effective communication and coordination amongst key stakeholders, the best of which reaches across involved state, local, federal and private organizations. Another commonality of these best practices is the establishment of a central body or office, responsible for the oversight and implementation of recovery efforts, the most effective of which is a gubernatorial founded, directed, and supported effort. In many of the examples below, it is at a governor's direction and vision that the coordination of recovery efforts are established and championed.

Common Success Factors

The [National Disaster Recovery Framework](#) identifies seven success factors for successful disaster recovery. These are:

Effective Decision-Making and Coordination

- Recovery leadership defines roles and responsibilities for all stakeholders and participants.
- Businesses, nonprofits and local community leadership examine recovery alternatives, address conflicts and make informed and timely decisions that best achieve recovery of the impacted community.
- Organizations providing leadership or assistance for recovery establish realistic metrics for tracking progress, ensuring accountability and reinforcing realistic expectations among stakeholders.
- Governments, volunteer, faith-based and community organizations provide assistance to track progress, ensure accountability and make adjustments to ongoing assistance.

Integration of Community Recovery Planning Processes

- Communities engage in pre-disaster recovery planning and other recovery preparedness, mitigation and community resilience-building work.

- Individual, business and community preparation and resilience-building provide a foundation for recovery plans that improve the speed and quality of post-disaster recovery decisions.
- The public-private partnership under the National Infrastructure Protection Plan (NIPP) facilitates broad coordination and information sharing among all levels of government and private sector owners and operators of critical infrastructure.
- The community develops processes and criteria for identifying and prioritizing key recovery actions and projects.
- The community's recovery leadership creates an organizational framework involving key sectors and stakeholders to manage and expedite recovery planning and coordination.
- Recovery authorities revise existing local and state level emergency response contingencies to include recovery planning best practices and other preparedness, mitigation and community resilience-building work.

Well-Managed Recovery

- Well-established, pre-disaster partnerships at the local, state, tribal and federal levels, including those with the private sector and nongovernmental organizations (NGOs), help to drive a successful recovery.
- Recovery stakeholders leverage and coordinate disaster and traditional public- and NGO assistance programs to accelerate the recovery process and avoid duplication of efforts.
- Communities seek out, interface and coordinate successfully with outside sources of help, such as surrounding governments, foundations, universities, nonprofit organizations and private sector entities — a key element in rapid recovery.
- Readily available surge staffing and management structures support the increased workload during recovery, such as code enforcement, planning, communications, grant writing and management.
- Recovery leadership establishes guidance for the transition, including the shift of roles and responsibilities, from response operations, to recovery and finally, a return to a new normal state of community functioning.
- Ensure compliance with architectural standards and programmatic accessibility during recovery.

Proactive Community Engagement, Public Participation and Public Awareness

- Stakeholders collaborate to maximize the use of available resources to rebuild housing, infrastructure, schools, businesses and the social-historical-cultural fabric of the impacted community in a resilient manner; and to provide health care, access and functional support services.
- All community perspectives are represented in all phases of disaster and recovery planning; transparency and accountability in the process are clearly evident.

- Communities create post-disaster recovery plans that can be implemented quickly. Local opinions are incorporated so that community needs are met in a more holistic manner, maximizing the provision and utilization of recovery resources and built upon, or incorporated into, the community master plan.
- Public information is accessible to keep everyone informed throughout the recovery process. This includes providing appropriate aids and services, such as captioning, large print, Braille, interpretation and translated materials, to ensure effective communication with individuals with disabilities and to facilitate access to information for individuals with limited English proficiency.
- Continuous and accessible public information campaigns to community members on various recovery programs and the commitment to short, intermediate and long-term recovery, as well as the overall recovery progress, increase public confidence.

Well-Administered Financial Acquisition

- Community stakeholders need to possess an understanding and have access to broad and diverse funding sources in order to finance recovery efforts.
- The community's knowledge and professional administration of external programs greatly aid the recovery progress.
- Funders and resource providers collaborate to provide program flexibility and implement finance planning. Recovery management and program administration collaborate in a post-disaster environment.
- Recovery management programs support the development and maintenance of adequate financial monitoring and accounting systems for new and large levels of investment. Management programs include systems that detect and deter fraud, waste and abuse.
- Federal recovery expenditures maximize the use of local businesses to promote local economic development.

Organizational Flexibility

- Organizational structures for coordinating recovery assistance are scalable and flexible.
- Recovery structures at all government levels evolve, adapt and develop new skills and capacities to address the changing landscape of post-disaster environments.
- Functional and effective intergovernmental relations influence the efficiency of the recovery process.
- Organizational flexibility facilitates the application of laws, regulations and policies in the context of disaster and enhances the government's adaptability to govern in unforeseen incidents.
- Flexible staffing and management structures enhance the adaptability of the governmental structure.
- Increased pre-disaster partnerships help reduce or avoid the challenges of establishing new partnerships in a post-disaster environment.

- Organizational flexibility is compatible with the integrity and accountability of taxpayer funded programs.

Resilient Rebuilding

- The community rebuilds a sustainable future factoring in the ecological, economic, and local capacity considerations.
- The recovery is an opportunity for communities to rebuild in a manner which will reduce or eliminate risk from future disasters.
- Communities can incorporate stronger building codes and land use ordinances. Vulnerable structures can be retrofitted, elevated or removed from harm.
- Community members, businesses and local governments can incorporate risk reduction strategies into governance and local decision-making.

Recovery Best Practices – Examples

The following examples provide information on various disasters, lessons learned, and best practices throughout the country.

Iowa for severe storms and flooding

The State of Iowa sustained disastrous weather events throughout the spring and summer of 2008. From May to August, the state was hit by severe thunderstorms, tornados, hail, and unpreccented floods. These weather events displaced 40,000 Iowans and disrupted the lives of residents in 85 counties.

Best Practices:

- By Executive Order, the governor created a “Rebuild Iowa Advisory Commission” (RIAC) - a 15-member commission tasked with developing and determining priorities and strategies in the statewide recovery process.
- Through the same Executive Order that established the RIAC, the Rebuild Iowa Office (RIO) was also created and provided a consolidated, focused recovery organization and structure that was authorized and supported by state government leaders.
 - Centralized Communications: A role of the RIO was to speak with one voice and provide clear, transparent and consistent communication. This provided valuable information designed to educate the public on recovery progress, provide an outreach mechanism to those needing assistance, and list multiple disaster programs available to individuals, communities and businesses.
 - Constituent Services: The RIO also served as a central office for those impacted to receive program assistance and information. A Constituent Outreach Director was dedicated to handling these calls, while others assisted in finding the information necessary to answer questions. The RIO Constituent Outreach Director worked closely with other federal, state, and local government agencies and service providers gathering accurate and timely recovery program information to offer impacted citizens the best possible information and solutions.
 - RIO staff partnered with FEMA Long-Term Community Recovery planners to provide the most severely impacted community governments with an embedded

liaison to help establish goals, develop and implement recovery plans, and access resources. Initial recovery planning support was provided to 10 of the hardest-hit communities at each community's request to listen to their needs, and help plan their short and long-term recovery goals. RIO community liaisons attended town hall meetings and workshops, helped create partnerships tailored to each community, provided technical assistance on programs and provided strategies on sustainability initiatives.

- Coordination and Information Sharing: Originally organized and lead by FEMA Long-Term Community Recovery for the purpose of information sharing and networking between state, federal and non-governmental organizations involved in the recovery process, these meetings provided agency representatives the opportunity to meet each other, share data and program information, identify and discuss problems, and organize solutions. The RIO soon assumed responsibility for these meetings. As recovery progressed and needs changed, meetings were held less frequently, then information was shared through monthly written reports before discontinuing more than a year later.
- Flood forums and seminars: Eleven flood forums and public input seminars were conducted free to the public at various auditoriums, centers, schools, and libraries. Topics covered were Iowa precipitation, trends in water run-off, work of the Iowa Flood Center, floodplain management strategies, water quality, rural-urban watershed coalition building and a review of state policy issues. These presentations were followed by question and answer sessions that could last up to an hour.

Resource

Iowa Best Practices document, available online here: http://publications.iowa.gov/11080/1/2011-06_Iowa_Disaster_Recovery_Lessons_Learned_final.pdf

Louisiana for Katrina and Rita

Hurricanes Katrina and Rita made landfall along the U.S. Gulf Coast on August 29 and September 24, 2005 with devastating impacts on Louisiana. More than 1,100 lives were lost, 785,000 residents displaced, 215,000 homes and 18,700 businesses destroyed, 220,000 jobs lost, and 100 square miles of wetland destroyed by storm surge.

Best Practices:

Governor Blanco created the Louisiana Recovery Authority by executive order on October 17th, 2005 to help:

- Secure funding and other resources
- Establish principles and policies for redevelopment,
- Lead long-term community and regional planning efforts,
- Ensure transparency and accountability, and
- Communicate progress, status and needs of the recovery to officials, community advocates and the public.

Federal, state and local departments and agencies partnered to provide community recovery assistance across 25 impacted parishes. The established Louisiana Recovery Authority (LRA) was key in establishing the credibility of the long term recovery assistance with local communities.

Local parish leadership and the communities at large, worked with combined Federal and State initiatives, sponsored by the LRA. These efforts led to detailed project plans and goals, many of which are complete, and many more are still a work in progress.

Resources

- Louisiana Speaks: <http://www.cpex.org/louisiana-speaks/>
- Pre-Disaster Recovery Planning Guidance for States, February 23, 2016: <https://www.fema.gov/media-library/assets/documents/128572>.

Texas for Ike

On the heels of Hurricane Rita, Hurricane Ike slammed into the Texas Gulf Coast with winds of 100 mph and a storm surge of 17 feet. Many of the impacted communities were still recovering from the previous storm.

Best Practices

The State of Texas in response to multiple storms, established a high-level Governor's Commission to review policy issues. A tactical-level recovery organization was not formed. The federal recovery teams worked directly with state agencies, county judges (county executives), Councils of Government, and local officials to engage in recovery planning support in five communities and counties.

Local champions, sponsors, and in multiple cases, a dedicated recovery manager was identified. These efforts and leaders served their respective communities well, but did not receive the benefit of coordinated state action and prioritization of federal assistance where limited funds existed.

Resource

FEMA "Lessons in Community Recovery Seven Years 2011". Available online: https://www.fema.gov/pdf/rebuild/ltrc/2011_report.pdf

Mississippi for Katrina

Hurricane Katrina made landfall near Pearlington, Mississippi on August 29, 2005. Impacting more than a third of Mississippi's population and killing 230. Over 60,000 homes were seriously damaged or destroyed as well as infrastructure and the natural environment of the Mississippi Gulf Coast.

Best Practices:

- Governor Barbour appointed a Commission on Recovery, Rebuilding and Renewal that was privately funded, non-profit organization.

- Mid-October the Commission held a six-day “charrette” to establish a design and plan for the recovery.
- In 2006, the Governor established the Office of Recovery and Renewal, with the responsibility for designing the State’s various recovery programs.

Resources

- Mississippi Renewal Forum: <http://mississippirenewal.com/info/archiveindex.html>
- Pre-Disaster Recovery Planning Guidance for States, January 23, 2017: <https://www.fema.gov/media-library/assets/documents/128572>

New Jersey for Sandy

Hurricane Sandy made landfall, as a post tropical depression, on the New Jersey coast on October 29, 2012, damaging or destroying more than 346,000 homes and businesses, eroding hundreds of miles of shoreline and beaches, and generating statewide losses in excess of \$35 billion. On November 28, 2012, Governor Christie established a Governor’s Office of Recovery and Rebuilding (ORR) tasked with coordinating the long-term recovery efforts across State government and federal, local, private partners.

Best Practices:

- Executive order directing the State Comptroller to conduct reviews of all procurements and to publish a “recovery dashboard” to the public.
- With a Congressional allocation of Community Development Block Grant for Disaster Recovery (CDBG-DR), the Governor’s ORR developed an Action plan that had three priorities:
 - Housing Recovery
 - Economic Development
 - Planning and Infrastructure
- ORR teamed with New Jersey Department of Community Affairs (DCA) as the lead agency for housing recovery.
- ORR with New Jersey Economic Development Authority (EDA) to support the impacted businesses with their recoveries.

Resources

- Governor’s Office for Recovery and Rebuilding: <http://nj.gov/gorr>
- Pre-Disaster Recovery Planning Guidance for States, January 23, 2017: <https://www.fema.gov/media-library/assets/documents/128572>

Vermont for Irene

Flooding from storms affects many communities across the country, causing billions of dollars of damage annually. Climate change projections suggest that storms will likely become more frequent and stronger in many regions of the country. In light of these trends, many communities

want to improve disaster recovery and long-term flood resilience planning. “Flood resilience” means taking measures to reduce community vulnerability to flooding and support long-term recovery after a flood. Communities throughout Vermont faced this reality when Tropical Storm Irene hit in 2011, devastating infrastructure, communities, and lives.

Best Practices

In 2012, in the wake of Irene, the state of Vermont requested Smart Growth Implementation Assistance from EPA and FEMA. Smart Growth is an urban planning and transportation theory that concentrates growth in compact walkable urban centers to avoid sprawl. The assistance focused on incorporating smart growth principles into state policies, local development regulations, and Hazard Mitigation Plans to increase community flood resilience.

Resource

EPA Smart Growth, Planning for Flood Recovery and Long-Term Resilience in Vermont:
<https://www.epa.gov/smartgrowth/planning-flood-recovery-and-long-term-resilience-vermont>

Alabama for tornadoes

April 2011 brought two devastating tornado outbreaks to 31 communities. Federal assistance in the form of long term recovery was deployed to the five most impacted communities for recovery planning assistance. The communities requiring targeted assistance suffered serious losses of housing, business, health facilities, and public infrastructure.

Best Practices

In a response to better organize teams, Governor Robert Bentley signed an executive order on June 13, 2011 which named the Alabama Department of Economic and Community Affairs (ADECA) to be the coordinating agency under his direction for long term recovery efforts. For the first time, FEMA piloted the NDRF in Alabama to test some of the concepts months before the NDRF was officially adopted.

A working relationship across the communities, state, federal, NGO, and private partners was developed and grew between the NDRF entities and ADECA, as both learned to navigate the increased Federal resources and direction in coordinating efforts across the relevant federal agencies.

This disaster was a significant learning process for the federal teams; today’s federal resources have benefited and the ongoing lessons learned are reflected in each succeeding federal recovery operation.

Resource

FEMA “Lessons in Community Recovery Seven Years 2011”. Available online: https://www.fema.gov/pdf/rebuild/ltrc/2011_report.pdf

Williamson, WV for economic development

In 2012, concern over their town's economic and health problems caused citizens to form Sustainable Williamson – a “living lab” for implementing new ideas to improve the long-term health of their community. Since then, the town has added new jobs and businesses. The group maintains a keen focus on developing a stronger economy, as well as on health and other priorities.

Since 2012, Sustainable Williamson has been able to fund most of its activities with approximately \$5 million in grants from government agencies and private charities. Volunteer labor, including many Vista volunteers over the years, has been and continues to be another significant resource.

Williamson is much like many towns in West Virginia that were struggling before the June 2016 flood disaster and face even greater challenges now. Williamson's experience show that over the long-term, given people who champion the effort, problems can begin to be solved, resources can be accessed, life can be better.

Best Practices

- Many new jobs at the health center were made possible thanks to grants, resulting in the center needing a bigger space. The owner of a nearby building was persuaded to renovate to accommodate the clinic, which improved the town's appearance and enabled the landlord to increase his rental income considerably. Furthermore, a private owner of pulmonary clinics decided to open a new branch nearby, bringing in more jobs and income and saving residents from a long drive to reach a specialist.
- A two-day workshop in 2012, facilitated with technical help from EPA and a contractor, kicked off Williamson's sustainability initiative by bringing together stakeholders from government, churches, non-profits and businesses. They focused on identifying obstacles and opportunities to make Williamson a more sustainable community. They then developed the plan that they have been using since. It has “six components of regenerative communities: health; food systems; integrated education; sustainable construction and tourism; and energy optimization. The program increased capacity when it was able to hire coordinators for each of these programs.
- Agricultural business is another area where Sustainability Williamson has been focused. “Revenues to growers and the number of suppliers increase every year. More people are growing, selling and eating fresh, healthy food,” McCormick said. The farmer's market is being expanded with a “food hub” that will include a community kitchen for local entrepreneurs to produce value-added products.
- Also in support of entrepreneurs, the initiative has created a space to help connect them with resources, using, for example, contests where entrepreneurs present their business ideas and the winning pitch receives a cash award.
- Meanwhile, the “Healthy in the Hills” program has helped hundreds of people learn to manage their diabetes, make healthier food choices and lose weight. In 2012 Williamson won the “Culture of Health” Award from the Robert Wood Johnson Foundation.

- In the tourism sector, there has been discussion about opening a campground, possibly to be run by the city to increase revenue. Cleaning litter from the waterways is another potential project. “We could put a lot of people to work doing that,” he said.

Resources

- For more about Williamson’s sustainability initiative, visit www.sustainablewilliamson.org or contact Darrin McCormick at 304-235-3400.
- An excellent article and video about these efforts can be accessed here: <http://www.rwjf.org/en/library/articles-and-news/2014/06/coh-williamson-wv.html>.

Conclusion

A foundational best practice to deal with rapid change is collaboration. All of the case studies in this document have that in common. The requirement that all change-stakeholders coordinate with everyone else’s efforts is vital for both efficiency and effectiveness. The opportunities to partner and coordinate efforts allow all to make the best use of limited resources. No matter who is the champion or sponsor, there needs to be a leader that communicates and coordinates all relevant activities to align priorities, communicate the vision, direct the resources and achieve the best possible solutions that serve the people of West Virginia.

DR-4273-WV

Recovery and Resilience Discussions

Analysis

1-24-2017

Recovery and Resilience Discussions Analysis

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Background

As part of West Virginia's long term recovery efforts in response to heavy rains and flooding at the end of June 2016, FEMA National Disaster Recovery Support (NDRS) staff were asked to support a series of informal discussions, led by the WV Department of Commerce. The purpose of these discussions was to meet with small groups of local, state, and federal partners in the most affected areas, to:

- Learn about: 1) community- and region-wide recovery planning and resilience issues; 2) what is important to protect/preserve; and 3) what changes are desired;
- Discuss long term recovery planning needs, as well as roles of state, local, and federal partners; and
- Gather information that will help form future recovery efforts and meetings.

Participants included representatives from state Regional Planning and Development Councils (RPDC), Long Term Recovery Committees (LTRC)¹, local municipalities and organizations, and state and federal agencies. Three discussions were hosted in various parts of the state: 1) Summersville, WV on November 9, 2016; 2) Clendenin, WV on November 18, 2016; and Lewisburg, WV on November 30, 2016. Individual meeting notes are included at the end of this analysis.

Cross-cutting Issues

As a result of the discussions, it became clear WV communities are facing many of the same recovery challenges. The cross-cutting issues identified throughout this process are:

1. Communication and Coordination
2. Capacity
3. Community Engagement
4. Affordable Housing
5. Broadband
6. GIS Data
7. Economic Development

For each of the identified cross-cutting issues a summary of the discussion is provided and a list of potential solutions and resources for beginning to address the issue are identified.

Implementation for almost all of the proposed solutions will require coordination amongst the whole community along with an identified lead (e.g. federal, state, regional, non-profit or local entity) to spearhead the initiative. This report does not identify a lead for each solution. Leads should be identified as part of future recovery coordination efforts.

¹ NOTE: In WV, Long Term Recovery Committees (LTRCs) are also referred to as Long Term Recovery Groups (LTRGs)

Analysis and Potential Solutions

1. Communication and Coordination

There is a need for a centralized coordinating body, which would serve to assist the RPDCs, LTRCs, and other municipal and local organizations. Municipal, regional and local organizations want to sustain their unique communities, and although they have access to some information (funding opportunities, programs, and resources), there are many gaps. They would benefit from a coordinating body which can a) obtain and disseminate comprehensive information and opportunities related to long term recovery, and b) ensure regional and state-wide meetings are regularly scheduled and supported administratively. Communications are a big issue. There should be a platform for disseminating information to local communities to ensure the whole community is equipped with the tools needed to make efficient and effective decisions.

Potential Solutions

- The implementation of a State Resilience Office (SRO) and staff, as suggested in the FEMA-4273-DR-WV Recovery Support Strategy, may serve as the main coordinating body for information-sharing and meeting coordination for local and regional partners. Embedding SRO staff with RPDCs may be considered in order to provide direct technical and coordination assistance.
- A Resource Guide, including funding and technical assistance resources, may help in identifying the agencies and programs available to assist in current and future recovery and resilience efforts.
- Coordination between regional and local organizations, through continued meetings, will serve to grow relationships. For example, the New River Gorge Regional Development Authority is currently developing a “Capital Access Guide”, which is intended to serve as a resource for businesses and entrepreneurs. This guide may act as a supplement to any resource guides developed in the future.
- FEMA’s Community Recovery Management Toolkit is a valuable resource for guidance through the recovery process: <https://www.fema.gov/resources-plan-post-disaster-recovery>

2. Capacity

Municipal, regional and local organizations all reported a lack of capacity, both personnel, and financially. As a result of limited staffing, the ability to implement current program activities, and search for new funding and projects, is greatly hindered. It is also challenging to find sufficient funding to support implementation. Needs include: a) reliable, continued funding to support current staff; and b) funding to secure and maintain additional staff.

RPDCs reported struggling with putting together funding packages, coordinating multi-year projects, and managing disparate funding requirements. Every grant and project comes with different requirements, and it is often a struggle to meet the funding match requirement.

Towns also report being overwhelmed due to limited staffing. In the aftermath of the flood, city/town departments have been inundated with requests from community members and they do

not have the capacity to help with all the inquiries. They are often aware of the resources available to address concerns, however, they are unable to access them due to limited time, staffing, or required matches.

Potential Solutions

- The creation and implementation of an SRO to manage long-term recovery and resilience activities, is a major component of the Recovery Support Strategy (RSS). This office will work not only with critical state, federal and local partners to implement recovery initiatives but it will also work to enhance statewide resiliency and recovery preparedness.
- Resources for staffing, program implementation, and grants management include:
 - CNCS: Vista, Senior Corps, AmeriCorps: <https://www.nationalservice.gov/>
 - Silver Jackets: <https://silverjackets.nfimp.us/>
 - Society of Civil Engineers: <http://www.asce.org/routing-page/technical-areas/>
 - Points of Light Foundation: <http://www.pointsoflight.org/>
 - American Institute of Architecture, West Virginia Chapter: <http://aiawv.org/Home/>
 - US Green Building Chapter, West Virginia: <http://www.usgbc.org/usgbc-west-virginia>
 - GRANTSCASE: <http://www.grantscase.com/>
- Utilizing volunteer time and material donations as a match in order to sustain various grant-funded programs is key for many communities in maintaining recovery and other project implementation.
- Providing training opportunities through federal and/or state partners, to include: long-term recovery planning and implementation, community resiliency and sustainability.

3. Community Engagement

West Virginia communities want to be engaged in the recovery process and work on efforts from the bottom-up. Some believe there is too much reliance on the state and federal programs, and want communities to “own” their recovery. Municipal and local organizations would like assistance in organizing and fostering community engagement.

Potential Solutions

- Coordinate and hold regular community meetings to organize local community-wide recovery priorities, then communicate these priorities and local community recovery needs to state and other partners.
- Engage local citizens and state partners through the use of social media. Use of websites, Facebook and Twitter are often easily accessible and widely used.
- FEMA’s Community Planning and Capacity Building (CPCB) toolkit: <https://www.fema.gov/national-disaster-recovery-framework/community-recovery-management-toolkit>

- Investigate community engagement organizations and groups to further create a sense of community. There are a number of volunteer organizations that may be developed at the local level. Examples include:
 - Community Emergency Response Teams (CERT): <http://www.rcady.wv.gov/WESTVIRGINIACITIZENCORPS/Pages/CERT.aspx>
 - Medical Reserve Corps: <https://mrc.hhs.gov>

4. Housing

The need for more affordable housing was expressed by all communities. This need existed before the flood; however, the number of individuals and families displaced by the flood has made the need for available housing a priority.

Blight is also a challenge in many communities. Municipality efforts in demolishing vacant and dilapidated structures are often delayed due to legal waiting periods when owners cannot be located.

Potential Solutions

- Resilient Housing
 - Educate homeowners on preparedness options
 - Develop incentives to encourage mitigation strategies while rebuilding
- Blight
 - Identify and abate all destroyed, vacant, and derelict structures within the impacted communities and rural areas
 - Encourage private redevelopment of blighted properties
 - The HUB West Virginia includes an Abandoned Properties Coalition that “focuses on identifying and advocating for policy opportunities and solutions relating to abandoned and dilapidated properties.” <http://wvhub.org/abandoned-properties-coalition/>
 - Potential use of condemned structures for fire department training exercises

5. Broadband

Lack of broadband is a major issue throughout the state. Unreliable and slow internet access affects businesses, retention of talent and potential businesses coming to WV, individual access to information and internet-dependent employment (home and otherwise), and students’ ability to study and work from home.

Potential Solutions

The formation of the Governor’s West Virginia Broadband Enhancement Council (WVBEC) in 2016 illustrates the state’s commitment to increase broadband access and set goals for expanding broadband networks in the impacted rural areas. Working through the state and other partners, local municipalities and committees can explore programs which may help get their communities connected. Some of these programs include:

- EPA's Smart Growth, "Cool and Connected" program helps small towns use broadband service to revitalize main streets. <https://www.epa.gov/smartgrowth/cool-connected>
- USDA Community Connect Grants. This program helps fund broadband deployment into rural communities where it is not yet economically viable for private sector providers to deliver service. <https://www.rd.usda.gov/programs-services/community-connect-grants>
- National Resource Network – "Access and Inclusion in the Digital Age" Resource Guide is designed to support U.S. communities of all sizes and geographies in advancing their goals for high-speed Internet access and digital inclusion. http://www.nationalresourcenetwork.org/en/Document/306284/Access_and_Inclusion_in_the_Digital_Age_A_Resource_Guide_for_Local_Governments

6. Geographic Information System (GIS)

GIS data and capabilities and data are limited at the regional and local level. There are various small sections of reliable utility data, and the WV Infrastructure and Jobs Development Council has water and sewer systems mapped. The data available, however, is often not comprehensive. There is a need for a centralized, comprehensive GIS system, which can be accessed by all state, regional and local agencies and organizations. Access to such a system would be instrumental in planning efforts, grant applications, and programmatic reporting.

Potential Solutions

- Coordinate GIS requests with the West Virginia Office of GIS Coordination (<http://www.wvgs.wvnet.edu/www/giscoord/index.php>) and the West Virginia Geological and Economic Survey (<http://www.wvgs.wvnet.edu/www/giscoord/index.php>) to see if needed information and mapping already exists.
- "Summer of Maps" is a fellowship program that matches nonprofit organizations that have spatial analysis needs with talented students pursuing careers in geospatial data analysis to complete projects over a three-month period during the summer. The program funds a summer fellowship for an advanced student to work with your organization at no cost. <http://www.summerofmaps.com/>

7. Economic Development

There is a strong desire to develop available economic development assets throughout the state. Regional and local organizations want to use and enhance what is available to them: rivers, adventure tourism, theaters and "Main Street" initiatives. Communities want to see their storefronts filled and streets lined with residents and tourists alike; in order to attract businesses and tourists, they need help rebuilding and developing those attractions.

Potential Solutions

- Support and encourage municipality efforts to explore and implement economic diversification
- Support revitalization of downtown commercial districts to promote business development and economic diversification

- Coordinate town hall meetings and encourage community engagement in economic planning and development meetings
- Identify opportunities to develop new and improve existing tourism attractions, destinations and businesses
- Expand and publicize the state trails plan (walking/biking/hiking/ATV)
- Expand and publicize historic and cultural sites
- Develop mechanisms that allow the state to better encourage development of new entrepreneurs and to develop new skilled workers for the tourism sector
- Funding and programmatic resources include:
 - EPA's Smart Growth, "Local Foods, Local Places" program helps people create walkable, healthy, economically vibrant neighborhoods through the development of local food systems. <https://www.epa.gov/smartgrowth/local-foods-local-places> (Note: The Town of Rainelle is a participant of this program.)
 - EPA's Smart Growth, "Healthy Places for Healthy People" program helps communities create walkable, healthy, economically vibrant places by engaging with their health care facility partners such as community health centers, nonprofit hospitals, and other health care facilities. <https://www.epa.gov/smartgrowth/healthy-places-healthy-people>
 - "What's Next, West Virginia?" is a series of conversations that will take place in communities all over the state in the coming year. These conversations are designed to encourage talking, thinking, and actions based on West Virginians' own ideas for building a more vibrant and diverse economy. The effort is being organized by the WV Center for Civic Life, the WV Community Development Hub, and a broad--and growing--coalition of partners from nonprofit, philanthropic, governmental, educational, and faith-based organizations. <http://whatsnextwv.org/>
 - Refresh Appalachia - Agricultural Entrepreneurship Development Program is a regional economic and workforce development initiative to establish a sustainable training and development program to increase the success of beginning farmers and ranchers in West Virginia, the Mid-Ohio Valley Region, and eastern Kentucky. <http://www.refreshappalachia.com/about.html>

Recovery and Resilience Discussion Notes

Region IV

885 Broad St. #100 Summersville, WV

November 9, 2016

Meeting Purpose

- To learn about: 1) community- and region-wide recovery planning and resilience issues; 2) what is important to protect/preserve; and 3) what changes are desired.
- To discuss long term recovery planning needs, as well as roles of state, local, and federal partners.
- To meet with a small group of players to discuss where we are and get an idea of what needs to happen. The information gathered in these meetings will help form the RISE meetings.

Expectations

- Address vulnerabilities with resilient solutions
- Foster conversations within communities

Discussion Participants

Mary Jo Thompson, WVDO	Kevin Snyder, FEMA
Al Lisko, WVDHSEM	Regina Marotto, FEMA
James Bush, WVDO	Thom Rounds, FEMA – CPCB
Joe Brouse, NRGRDA	Michelle Diamond, FEMA-CPCB
Jeff Wood, WVNG	Mickie Valente, EDA
John Tuggle, Region 4 RPDC	Julie Alston, HUD
Brian Aluise, Gov. Tomblin's Office	Brandon Porinchak, HUD
Russell Tarry, WVDO	Tracey Rowan, EDA
Pete Hobbs, Mayor of Ansted	Jamie Meadows, Region 4 RPDC

General Comments

- The state has plans to develop a State Resiliency Office (SRO), which will serve as the State's hub for recovery and resilience activities and information.
- The CDBG Program (known in WV as "Small Cities Block Grants") is administered through the WV Department of Commerce and distributed through the Regional Planning and Development Councils (RPDCs)
- RPDCs will be instrumental in moving forward.

Region 4 Overview

- Region 4 is comprised of 5 counties (Fayette, Greenbrier, Nicholas, Pocahontas and Webster), and 32 municipalities
- Lewisburg and Summersville are the largest communities in the Region
- Region 4 is very rural and culturally/economically diverse
 - Diversity in adventure tourism/outdoor activity assets and opportunity (snowshoe, the gorge, golfing, the Greenbrier, etc.)
 - Limited manufacturing, but large artisan industry
- Changes in the transportation network (new highways) led to the decline of many communities
 - Limited mass transit. Mountain Transit Authority

- Residents of many communities are willing to take lower-paying jobs rather than commute long distances to Beckley or Charleston
- Limited healthcare facilities – no large hospitals in area
 - Osteopath school in Lewisburg. Doctors leave the area after training
- Retention of trained workforce is a challenge. Not many job opportunities for youth; many skilled workers leave the area after training.
- Retirees return; low cost of living
- Investments
 - Boy Scouts of America
 - Faith-based groups (Young Life \$25 million)
 - Tourist-based economies
 - Apple orchard project
- Richwood and Rainelle are in bad shape in terms of flooding susceptibility, housing, jobs, access to services, schools, etc.
 - Richwood even offered up their lumber site (their one major business that employs 55 people) as new site for school because current school is in the floodplain and will not be allowed to re-open on current location
- Marlinton was not affected by recent flooding, but is vulnerable as it sits next to the Greenbrier River in the flood zone.

RPDC Overview

- RPDC staffing is project-dependent. Revenue from grant projects are how staff and capacity are sustained.
- Project revenue is 2/3 of their income.
- Project examples: sewage treatment, highway projects, flood control
- RPDC struggles with putting together funding packages – how they all can fit together and assembling funds for multi-year projects
- The proposed State Resilience Office staff may support RPDCs
- Project management takes away from planning when capacity is static

Local Government Challenges

- Municipalities and unincorporated communities depend on Counties
 - County Commissions have the least amount of capacity to address recovery/development issues
 - Counties can't apply business and occupation taxes, which provides incentive to businesses to locate outside incorporated areas
- The town of Ansted serves as the service center for much more than just Ansted. For example, the town includes 1,404 residents, yet serves a population of over 4,000.
- Residents and businesses outside of the adjacent municipalities receive benefits from those towns without paying taxes to support the services.
- Most municipalities are struggling

Recovery/Development Issues and Challenges

- Infrastructure
 - Broadband
 - Must be part of the infrastructure discussion
 - Lack of broadband is a major factor in retention of talent.

- Residents have no access to broadband, meaning they cannot take higher-paying jobs that require monitoring from computers.
 - Prospective businesses have infrastructure (ex. Broadband) and workforce expectations
- Public Service Districts (PSD)
 - Local districts set their own rate structure and decision making process
 - Public Service Commission is a challenging partner, because the districts are reluctant to approve consolidations
 - Major concerns with PSDs in terms of limited regulations
 - Poor maintenance of public services
 - Low rate structure
 - Poor wages to workers and other staff issues
 - Water quality issues (e.g. raw sewage in streams)
 - There are entire towns with no sewer systems
- Public safety costs are shared by jurisdictions
- Schools
 - Student populations are declining, leading to the possibility of consolidating school districts. This is a concern for many, as schools provide a sense of identity for many communities. Ex: Richwood does not want to consolidate, nor for the school to have to be relocated.
 - Schools often can't be reconstructed in same locations due to position in the floodplain
 - Uncertain what is to happen with closed schools in WV. Ex: there are two school buildings sitting vacant in Ansted.
- Housing
 - Flood issues exist in many communities, not just those that received disaster declaration. For example, there are 44 Richwood homes currently located in the floodplain
- Blight is an issue that is prevalent throughout the state and needs to be addressed
- GIS capabilities and data are limited. In Region 4, coordinated comprehensive GIS data of any type is virtually non-existent. The City of Oak Hill has the most robust GIS system, but is the only locality with such abilities. There are various small sections of reliable utility data and the emergency services community has made great strides in the GIS world. The WV Infrastructure and Jobs Development Council has water and sewer systems mapped, however, this is loose knit and only good for very preliminary planning purposes.

Opportunities

- Region 4 RPDC offered to house SRO staff, but would need to ensure budgetary needs will be met.
- Suggested to house a "resiliency" staff member or dedicated POC within each RPDC.
- Transitional opportunities discussed:
 - Agriculture
 - Tourism –was "growing", now "maturing"
 - Manufacturing
 - Consolidation of Public Service Districts (water/sewer)
 - Being explored post-floods
 - Needs legislative backing
 - There are "turf" or identity issues to be considered

- Timber opportunities with the use of automation so that there is value added by businesses within the region before the timber is shipped out
 - Processing to create wood byproducts (chips, chipboard, pellets, etc.)
 - 35,000 acres of privately owned timber land
 - Rail corridors are assets but availability is limited (Norfolk & Southern, CSX, reduced haulage)
 - Area along I-64 has developable land; infrastructure in place

Next Steps

- Feedback from this meeting, along with potential next steps will be compiled and made available
- FEMA staff will research and share examples of communities (specifically extraction-based communities, if any are found) that have recovered resiliently. Success stories (not Branson, MO) are needed as an example and potential guide forward for WV.
- The state is developing and coordinating their RISE Sessions. Information gathered during these discussions will be used to put together meaningful and effective agendas.

Recovery and Resilience Discussion

Region III (Kanawha County) and Region V (Roane County)

4 2nd Street, Clendenin, WV 25045

November 18, 2016

Meeting Purpose

- To learn about: 1) community- and region-wide recovery planning and resilience issues; 2) what is important to protect/preserve; and 3) what changes are desired.
- To discuss long term recovery planning needs, as well as roles of state, local, and federal partners.
- To meet with a small group of players to discuss where we are and get an idea of what needs to happen. The information gathered in these meetings will help form the RISE meetings.

Expectations

- Address vulnerabilities with resilient solutions
- Foster conversations within communities

Discussion Participants

Kevin Snyder, FEMA	Mary Jo Thompson, WVDO
Regina Marotto, FEMA	James Bush, WVDO
Michelle Diamond, FEMA-CPCB	Jeff Wood, WVNG
Julie Alston, HUD	Brian Aluise, Gov. Tomblin's Office
Tracey Rowan, EDA	Russell Tarry, WVDO
Lorna Rosenberg, EPA	John Ballengee, United Way
James Young, Kanawha County	Terry Martin, RIII RPDC
Kay Summers, A New Clendenin	Scott Ferguson, Clendenin United Methodist
Carol Jackson, MOURC	Joe Ross, Roane County LTRG
Cody Schuler, Charleston Area Alliance	Gary Bledsoe, Mayor Town of Clendenin
Mike Kelley, Kanawha County Schools	

General Comments

- The state has plans to develop an "Economic Resiliency Office" which will house comprehensive plans, as well as create a state-wide resiliency plan. The office will include personnel and resources for the Regional Planning and Development Councils (RPDCs)
- The CDBG Program (known in WV as "Small Cities Block Grants") is administered through the WV Department of Commerce and distributed through the RPDCs
- The state has received \$17 million in flood recovery assistance through the federal Community Development Block Grant (CDBG).
- It takes time for accurate information to get through the rumors. Oftentimes, once correct information is received and understood, the deadlines for enrolment in FEMA programs has passed. FEMA deadlines should be more flexible because of this.

Region III (Clendenin) Overview

- RIII RPDC
 - The 4 County/29 municipality RPDC is project-focused and maintains a staff of 7 people.
 - The RIII RPDC is a planning agency, including transportation projects, which operates under a comprehensive development strategy that every single one of their programs must fit in with.
 - It is challenging to fit all of the funding pieces together, given the different requirements for each project, and to find sufficient match.
 - Challenge in finding sufficient funding to support implementation. Currently, capacity does not exist for the entire process.
 - Many of the challenges faced are stringent requirements and limiting guidelines that come with funding, such as money having to be allocated for specific activities. This makes it challenging to optimize funding and complete needed projects.
 - RPDC needs to hear from municipalities and a main POC (the mayor, for example) what the community wants and needs, as far as projects are concerned.
 - The resilience piece is new for the RPDC, and they are starting now.
 - Unlike RV RPDC, RIII does not provide loan administration. There are other agencies/ organizations to meet this need in the region.
- Clendenin
 - Clendenin was the recipient of CDBG-DR funds approximately 10-12 years ago for water/sewer replacement.
 - Mayor feels the town is “well on its way to recovery”, and that the major concerns now is infrastructure; slips, streets, drainage projects, etc. There are streets in need of repaving.
 - Estimates that about 30% of businesses are back.
 - The town is working on a 60% budget and will be able to get by for the next 4 to 5 months, but they’ll need more businesses to open for the associated tax revenue. It will most likely be 12 to 18 months before they get to their “new normal”.
 - Ministers and communities have come together for effective recovery efforts. There has been great community support.
 - It is an elder community and people want to stay there. There has been little involvement/input from youth in the area.
 - What caused Clendenin’s decline?
 - The interstate being located so close has ruined a lot of the town’s prosperity, as people no longer need to drive through town to get where they need to go. When people had to drive through town, they supported local businesses and helped create a sense of community.
 - Decline of coal industry did not have a major impact on Clendenin
 - Older, more active-in-the-community generation is dying and youth is moving away.
 - A history of “merger and acquisition” activity has led to the closing of smaller businesses and employers moving away.
 - What do you want the future to look like for your community?
 - Use and develop available assets (the river, tourism, current projects/initiatives, etc.)
 - Clendenin has a lot of promising activities identified: Rails to Trails, the re-opening of the Roxy Theater, and a nursing home project.
 - Local booster initiative: 25045 – A New Clendenin
 - Created to bring together all of the zip code. Regionalism is key to the area – the entire 25045 zip code needs to be addressed, not just the town itself.

- There is an opportunity for Clendenin to be a cool little suburb of Charleston (a destination for shopping, strolling and outdoor enjoyment) with the right plan. The desire is for every storefront to be occupied, providing a tax base, sense of community, and visitors to the area.
 - Mindset of “if we build it they will come”
 - Schools
 - Rebuilding community schools is critical to the recovery effort
 - Clendenin Elementary - need to identify a site that will keep the school in the town
 - Herbert Hoover High School
 - Hoover is condemned, they now have approval for modular classrooms, most likely to be installed in January.
 - Need site approval process expedited so they can notify the community and start rebuilding. At the time of this meeting, the decision was with the School Board and the State School Building Administration.
 - Currently 770 students, may increase to 1000 with rebuild. They have not lost any enrollment.
 - Other educational efforts:
 - Working with Mined Minds program to train coal miners to write code for software development. They were not getting the response they expected from out-of-work miners so they’ve modified the approach to bring the program into the high school. They are considering adult education programs.
- Elkview Shopping Center Bridge is a contentious issue. There is a lot finger-pointing as to who is responsible for cost to replace the bridge. The issue is currently in federal courts.
 - In the meantime, the shopping center remains closed, meaning: tax dollars are lost, over 500 people are without jobs, and local, convenient shopping for surrounding communities is unavailable.
 - The mall is a \$13million asset, yet no one wants to be the one to make the investment in the bridge, which is technically private property and not available for FEMA funds.
- Roane County is also dependent on Clendenin
- James Young mentioned that Kanawha County is getting ready for demolition program

Region V (Roane) Overview

- RV RPDC
 - Manages federal, state and local funding, along with the different requirements for each funding stream, through a staff of 30 people.
 - Delivers grants and post-disaster funding/programs and oversee a small business loan program
 - Thanks to EDA, they have new policies to focus on disaster funding/recovery to those who need it. These policies allow them to prioritize disaster-related efforts over non-disaster activities, as needed.
 - Working with Brian Penix (SHMO) on HMGP grants; they’ve worked with him previously but primarily doing buyouts
- Roane County
 - Large elderly population
 - Roane County is dependent on Clendenin

- Roane County has no broadband infrastructure
 - Broadband is important for economic development and educational opportunities. Businesses will not relocate to Roane County without access to broadband
 - Many communities have broadband access in the schools, but nowhere else in the communities. This is problematic because the students can work in the school, but aren't able to complete their homework.
- Broadband is needed, but before that, reliable phone lines are needed. Some do not have general telephone service.
- Individual/household unmet needs
 - There are still lots of unmet needs in the area; it is difficult getting a sense of what the universe of unmet needs are
 - They do not know how many houses have really been affected
 - People are still trying to get back into their homes. Many people didn't apply to FEMA (once they saw the SBA loan applications, they didn't even bother to apply for IA).
 - In some cases the issue is pride, in other cases its mistrust of the government, and some people are just overwhelmed and don't know what to do.
 - There may be Federal and County money coming into the communities, but there is no money coming in from the State.
 - Health concerns with well contamination as they still are in need of immediate response actions
 - Water access and infrastructure needs remain critical.
- Long-term needs:
 - There are not enough skilled labor (electricians, plumbers, etc.) to address the number of residential repairs needed in a timely manner
 - Need for more available, safer senior housing
 - Need to analyze opportunities for interconnecting Public Service Districts (sewer and water systems)

Recovery/Development Issues and Challenges

- Until the Elkview Shopping Center Bridge is rebuilt, tax dollars will continue to be lost, over 500 people are without jobs, and local, convenient shopping for surrounding communities will remain unavailable.
- Delays in the construction of the first school "the first school needs to be built to give hope"
- Lack of contractors/skilled workers to do the recovery work (specifically HVAC)
 - More local skilled labor - HVAC needed to install new homes – can training be made available for local community?
 - Rebuilding: homeowners want to rebuild but there are not enough skilled workers in the area to meet the demand. Therefore, many homeowners are forced to wait to complete their repairs.
 - New building codes have been implemented since structures were built. This means, in some cases, that entire systems will have to be replaced to build to code. Many don't receive or have the funding to do this the right way.
- Location challenges: many residents don't have cars and mass transit isn't available in the area

Opportunities

- Kanawha County has offered assistance with long-term planning. They have limited capacity, but can help if given direction and assistance.
- Clendenin area could be the “next great frontier” for residential development
- If the federal government were looking to pilot a “next best technology” effort, WV would be very interested in hosting an initiative like this
- Long term resiliency efforts need to be centered around existing community and state assets.
- Broadband infrastructure is needed throughout these two regions, and the state as a whole.
 - Currently exists in some areas, but is highly unreliable. When too many people log on, the network crashes.
 - The focus in schools is shifting to all-online work/research, etc. Many students do not have internet access at home, preventing them to effectively complete homework or other school projects. No connectivity = no work. This lack of access perpetuates the gap between the haves and have-nots.
- I-79 corridor offers development opportunities because of available transportation and sewer and water infrastructure; WVNG offered to be of assistance if possible.

Next Steps

- Feedback from this meeting, along with potential next steps will be compiled and made available
- The state is developing and coordinating their RISE Sessions. Information gathered during these discussions will be used to put together meaningful and effective agendas.

Recovery and Resilience Discussion- Notes

Region I (Summers County) and Region IV (Greenbrier County)
130 Piercy Dr., Lewisburg, WV 24901

November 30, 2016

Meeting Purpose

- To learn about: 1) community- and region-wide recovery planning and resilience issues; 2) what is important to protect/preserve; and 3) what changes are desired.
- To discuss long term recovery planning needs, as well as roles of state, local, and federal partners.
- To meet with a small group of players to discuss where we are and get an idea of what needs to happen. The information gathered in these meetings will help form the RISE meetings.

Expectations

- Address vulnerabilities with resilient solutions
- Foster conversations within communities

Discussion Participants

Kevin Snyder, FEMA	Russell Tarry, WVDO
Regina Marotto, FEMA	Brian Aluise, Gov. Tomblin's Office
Michelle Diamond, FEMA-CPCB	Jason Roberts, Region I RPDC
Joy Branham, FEMA	John Tuggle, Region IV RPDC
Tracey Rowan, EDA	Jack Woodrum, Summers County Commission
D. Anne Cavalier, USEDPA	Al Lisco, WV DHSEM
Dave Lumsden, GGLTRC	Joe Garcia, GSLTRC
Kayla McCoy, GGLTRC	Steve Lipscomb, Summers County OEM
Heather Hanna, GVEDC	Lori Alderson, Town of Rainelle
Bo Belshee, City of White Sulfur Springs	Linda Coleman, City of White Sulfur Springs
Tom Cross, Greenbrier Valley EOC	Peggy Crowder, Greenbrier Valley Econ. Dev. Corp.
Joe Brouse, NRGDRA	Lorna Rosenberg, RIII EPA

General Comments

- The state has plans to develop an "Economic Resiliency Office" which will house comprehensive plans, as well as create a state-wide resiliency plan. The office will include personnel and resources for the Regional Planning and Development Councils (RPDCs)
 - Regional staff can sometimes do these things but the capacity doesn't exist at the "courthouse and city hall level"
 - Participants want to know: will the WV Office of Economic Resiliency take on the management of the state's recovery?
 - There are concerns that local volunteers will reach a limit of time and energy and not be able to continue with volunteer efforts.
 - When does the community know when their job is complete and others can take over?
- The Community Development Block Grant (CDBG) Program (known in WV as "Small Cities Block Grants") is administered through the WV Department of Commerce and distributed through the RPDC

- The state has received \$17 million in flood recovery assistance through the federal CDBG.
- Regional and local staff transition and limited capacity were a central theme throughout the meeting.
 - The learning curve to administer grants and to not miss deadlines is a critical deficiency.
 - Communities often can't meet the match requirements of grant funding
- Pre-existing issues:
 - Infrastructure, water, and sewer need work
 - Lack of internet/broadband. The less-fortunate don't have access to information that those with more money do. Internet is a luxury.
- There is a need to target funds where needed. Small Cities grant funding has typically gone to water and sewer; need more of a focus on housing and areas beyond water/sewer.
- Communications are a big issue: getting good information out; stopping bad information so that the whole community can make informed decisions
 - A majority of those impacted live in economically disadvantaged areas, and with low to moderate incomes. This often prohibits access to digital resources. Word of mouth is generally the best and most important way to communicate news and information.
- A Resource Guide would help in identifying the players, their respective "wheelhouse", and how they relate to one another; perhaps organizing it by functional area.
 - New River Gorge is using a BB&T grant to develop their "Capital Access Guide". But they don't have enough marketing budget to get it out there
- Community Empowerment/Community Engagement is a missing piece of recovery efforts. Communities want to see recovery as a bottom-up effort.
 - How do we do this? How do we encourage community involvement? How do we engage individuals in the community recovery?
 - Michelle mentioned FEMA's Community Planning and Capacity Building (CPCB) toolkit
- Homes that were flooded but not destroyed cause concern for lingering health issues
 - The Long Term Recovery Committees (LTRCs)¹ will assign case managers to help track these issues, but people need to contact the LTRC in order to communicate the need/issue.
- The state was asked about the interest received in Hazard Mitigation (HM) grants.
 - White Sulphur Springs has had two applicants so far.
 - The zoning officer needs more training on the HM program
 - Rainelle has had more applicants
 - Mitigation is an abstract concept for most – they need to see it for it to be real
 - Some of the rebuilds in Rainelle are using the old floodplain maps (which had a larger floodplain)
 - Rainelle residents are mostly interested in buyouts

Region I RPDC (Summers County) Overview

- Region I was not affected too badly by this flood, but they have been through this before. It forever changes the landscape; buildings are gone and only green space is left. It kills a community.
- Current efforts:
 - Working on hazard mitigation plans, grant applications, and grant management
 - Revision of the regional Comprehensive Economic Development (CED) Strategy
 - Some individual counties and municipalities have their own plans

¹ NOTE: In WV, Long Term Recovery Committees (LTRCs) are also referred to as Long Term Recovery Groups (LTRGs)

- Broadband is a priority.

Region IV RPDC (Greenbrier County) RPDC Overview

- Greenbrier County is in a better situation than the surrounding counties; it is the only county in the region that is not "distressed" (ARC designation).
- This flood has produced a need to review long-term plans already in existence.
- RPDCs focus:
 - Has been on recovery since the early days of the disaster.
 - Infrastructure, particularly broadband.
 - Need a long-term plan for recovery, but it is a slow process
- Capacity, and financing of capacity, is a major issue.
- Economic development priorities are tailored to properties owned by the town/city.
- There is a need for GIS data and resources: major priority for RPDCs

Long Term Recovery Committees (LTRCs)²

- LTRCs are fairly new and offer a different perspective from the established organizations
- LTRCs in West Virginia have been challenged to continue working in their communities after individual and household recovery to assist with economic and community development
- LTRCs asked about the process that the Fed and State uses in order to gain a holistic idea of the problem/issues at hand due to the disaster.
 - FEMA explained the National Disaster Recovery Support (NDRS) process of the Advance Evaluation Team (AET), Mission Scoping Assessment (MSA) and Recovery Support Strategy (RSS).
- LTRCs would like to see an organizational chart that clearly shows which agencies and organizations are involved in the response/recovery effort, and how they coordinate/who answers to who. They would like to understand how the Federal response and recovery is organized and its relationship to the state.
- Would like to know if there is a precedent for local, embedded staff to help bolster recovery capacity.
- The LTRCs do not have the staff/capacity to both continue dialogue and continue moving forward with the recovery.
 - They need funding for operating costs, training, case management, business case management, and equipment (computers, copy machines, fax, etc.).
 - Board development and training is needed, as well as guidance on how to retain board members and volunteers
- Would like to see a comprehensive resource guide to include: funding, project, and technical assistance opportunities, to include the players, an explanation of their "wheelhouse", and what resources they offer.
 - The New River Gorge Regional Development Authority is currently developing a "Capital Access Guide" which compiles grants, lenders, venture capitalists for businesses and small development centers in one resource. This may provide a piece of the desired resource guide.
- How do we maintain momentum? How do we sustain these activities as time goes on and we lose stakeholders? How do we keep these groups together after the flooding issues die down?
 - An example from Pennsylvania, where the State was involved in a convening a monthly/quarterly call between the different long-term recovery group, providing a peer-to-peer opportunity for them to communicate, was shared.

² NOTE: In WV, Long Term Recovery Committees (LTRCs) are also referred to as Long Term Recovery Groups (LTRGs)

- Community Empowerment – want to include all individuals in recovery process, making it a bottom-up effort. They want communities to own their recovery.
 - FEMA has a toolkit available on their website, which may be helpful in getting people involved
- Would like to see LTRCs as being an organizer of volunteers in future disasters.
- Is there an option to bring in a Local Disaster Recovery Manager?
- Recommendation to identify a point-of-contact to run monthly/quarterly LTRC calls down the road to ensure momentum isn't lost (ideally someone from the State Economic Resilience Office)
- Meetings like this allow us to realize we're all in the same boat.
- **Greater Greenbrier LTRC**
 - Includes: Greenbrier County, Monroe County, and Pocahontas County
 - How do we sustain this unique community? Is there a formula that we can use to connect all the pieces?
 - This session (meeting) is great; but it cannot be the last session.
 - Russell Tarry said the state's "Resiliency Office" can serve the role of coordinator for these continued meetings.
 - Described participants of this meeting as a "unique community of interest" and wondered how it would be sustained.
 - Very engaged with mitigation and economic recovery issues through the LTRC.
- **Summers County LTRC**
 - How do we coordinate volunteer opportunities? Early coordination of volunteers is critical.
 - Don't want to reinvent the wheel
 - Need to consider mitigation

Greenbrier Valley Economic Development Corporation (EDC)

- Pre-flood, the focus was on maintaining the properties they own or maintain.
- Since the flood, the biggest challenge/issue has been retention of jobs and businesses. Most businesses missed their entire tourist season and feel that they shouldn't bother to stick around any longer. They have been desperately trying to advocate for business communities.
- Want to be involved in long-term efforts/discussions, but have had to step away to focus on retention.
- Would like to see a plan that focuses on development and provides direct resources for individuals and small business owners.
- Development is a great indicator that there is commitment from the businesses to stay. There is a lot of concern from local businesses about their future.
- Currently working on small business forum; business coaching. Need to keep Main Street healthy so people will want to move there
- They are able to play the "neutral party" and advocate for businesses.
- Even though Greenbrier County is thriving economically, businesses are still at risk because of the disaster
- Next week, they are hosting a forum for small businesses; if they are able to instill some confidence, it will be a success.
- Small business owners need some hope.
- Their EDC has property that needs tenants

White Sulphur Springs

- Lack of capacity for overwhelming needs:

- The city is being bombarded with requests from community members and they just do not have the capacity to help with all the inquiries. They are wearing too many hats and are too understaffed.
- The White Sulphur zoning officer is overwhelmed
- White Sulphur has code enforcement capacity needs
- White Sulphur doesn't have inspection resources for all the new rental properties that are coming online
 - Problems will arise because of inadequate, uninspected repairs
 - Same is true in Rainelle
- There is a lack of affordable housing in White Sulphur Springs and Lewisburg

Rainelle

- Rainelle is a hub for the Appalachia Service Project and Vista volunteers. They are constantly being overwhelmed with inquiries.
 - The Appalachia Service Project has brought 16 homes back online in Rainelle
 - They could use more VISTA volunteers
- They have a USACE grant, DEP stream bed clean-up project, and more.
- Lack of capacity also a problem:
 - A lot of the resources that they need to address concerns *are* there, they just can't be accessed due to limited time, staffing, or required matches.
 - They can easily get overwhelmed by it all, "don't have enough bodies".
 - No code enforcement
- Protecting property value is a priority
- Public Health Issues – do we understand the depth of the mental health issues because of the disaster?
 - Rainelle PM feels the public health facilities are doing a good job
 - Are the school systems tracking issues?
 - Rainelle police and elementary school are very busy.
 - Who tracks/consolidates the issues? 911 call centers?
- Hundreds of wells have been contaminated. Concerned about public health issues.
- Finding owners of vacant property in Rainelle for the demolition program has been difficult, which means there are significant delays demolishing the property, and therefore run up against deadlines for programs that can help.

Recovery/Development Issues and Challenges

- Communication and Coordination
 - Need for centralized, accessible, comprehensive information.
 - Need to continue these meetings and see results
- Capacity
 - Need reliable, continued funding to support RPDC staff. Do not have capacity to see all needed projects through.
- Housing: lack of affordable housing and rental availability
- GIS data: want a centralized, comprehensive system, accessible by all necessary agencies/programs
- Well water contamination
- Mental Health concerns
- Data collection:

- Is anyone collecting info re: refuge facilities? School enrolment? Is there an increase of children in foster care due to loss of houses?

Opportunities

- Consider using the WV experience to look at revising federal and/or state regulatory mandates (ex. Deadlines)
- Explore more effective ways to get the Hazard Mitigation Program information to individuals.

Next Steps

- Feedback from this meeting, along with potential next steps will be compiled and made available
- The state is developing and coordinating their RISE Sessions. Information gathered during these discussions will be used to put together meaningful and effective agendas.